

as shown on Map 95, on an indirect alignment to avoid conflict with the planned extension of the primary runway of Capitol Airport and to minimize the impacts on wetlands and primary environmental corridor lands in the area.

The facility construction costs, exclusive of right-of-way acquisition costs, attendant to the improvements required to accommodate planned urban growth in the County after the year 2010, that is, costs over and above those envisioned under the 2010 transportation plan, would approximate \$230 million, expressed in 1995 dollars. Total costs may be expected to be considerably greater, depending on the extent to which the proposed street widenings and other improvements require additional right-of-way acquisition. Such right-of-way acquisition needs can only be determined upon more detailed facility planning. Of this \$230 million total additional capital cost under the buildout scenario, \$140 million, or 61 percent, would be attendant to the State trunk highway system; \$77 million, or 33 percent, to the County trunk highway system; and \$13 million, or 6 percent, to the local trunk highway system.

The additional arterial street system capacity expansion necessary between the years 2010 and 2050 under the buildout scenario is 111 miles, or a 14 percent system expansion, which may seem modest when compared to the expansion recommended under the 2010 plan stage from 1996 to 2010 of 160 miles, or 21 percent. However, it must be recognized that, particularly over the past 20 years, highway capital funding has been inadequate to meet system preservation resurfacing and reconstruction needs and particularly inadequate to meet capacity expansion needs. As a result, system expansion needs have been deferred. An estimated 86 miles, or 54 percent, of the 160 miles of system expansion recommended under the 2010 plan stage may be considered to have been deferred, a backlog of capacity expansion needs. Thus, the system capacity expansion warranted under the buildout scenario is significant. Moreover, if capacity expansion needs continue to be deferred and the buildout land use scenario occurs after the year 2010, traffic congestion may be expected to become severe and widespread throughout Waukesha County. If such deferral of needed capital investment in arterial streets and highways occurs over the 40 years from 2010 to 2050, it may be expected that almost every arterial roadway in the County will require reconstruction at an estimated total cost of \$1.0 billion in 1995 dollars.

An additional disadvantage of the full development of the County land use plan is that the level of service provided by the East-West Freeway (IH 94) between STH 16 and the Waukesha-Milwaukee County line may be expected to decline significantly, as the average weekday traffic volumes on this six-lane segment of freeway with a design capacity of 90,000 vehicles per average weekday may be expected to carry from 86,000 to 128,000 vehicles currently and from 104,000 to 140,000 under the 2010 stage and increase to loads of between 150,000 and 167,000 under the full development scenario. It has been assumed that this six-lane stretch of freeway would not be improved to eight traffic lanes. The future traffic volumes on this facility under the full development scenario would approach those currently carried on the East-West Freeway (IH 94) in Milwaukee County. Under current conditions, minimal traffic congestion occurs between STH 16 and USH 18. Moderate congestion, with restrictions on lane-changes and travel speed and reductions of speed of 5 to 10 miles per hour, occurs during the morning and afternoon peak hours for eastbound and westbound IH 94 traffic between USH 18 and Moorland Road; during both morning and afternoon peak hours of traffic for westbound IH 94 between Moorland Road and the Milwaukee-Waukesha County line; and during the afternoon peak hour for eastbound IH 94 between Moorland Road and the Milwaukee-Waukesha County line. Severe congestion, with speed reductions to between 35 and 45 miles per hour, occurs during the morning peak hour on eastbound IH 94 between Moorland Road and the Waukesha-Milwaukee County line. Under the 2010 stage during both morning and afternoon peak hours, severe congestion, with reduced speeds of 35 to 45 miles per hour, would be expected between STH 16 and USH 18, and extreme congestion may be expected between USH 18 and the Milwaukee-Waukesha County line, with stop-and-go driving conditions and speeds of 30 miles per hour or less. Under full development, during morning and afternoon peak hours, extreme congestion may be expected on this entire stretch of IH 94 between STH 16 and the Milwaukee-Waukesha County line, with stop-and-go driving conditions and speeds of 30 miles per hour or less.

TRANSIT SYSTEM

Growth and development in Waukesha County envisioned under the recommended County land use plan through the year 2010 and beyond will also require an increase in the level of public transit services provided within the County. This section

presents a design year 2010 transit system plan for Waukesha County and describes the additional transit services which may be required to serve the County under buildout conditions as envisioned under the County land use plan.

Year 2010 Transit System Plan

The transit system plan presented herein is that recommended for Waukesha County in the year 2010 regional transportation system plan, adopted by the Waukesha County Board of Supervisors in 1995. The proposed transit system was designed to serve the adopted regional land use plan and would therefore also adequately serve the pattern of urban land uses in the County envisioned under the year 2010 stage of the County land use plan presented in Chapter X. The recommended transit system improvements and expansion within Waukesha County have an estimated annual net operating cost (total operating costs minus farebox revenues) of \$8.6 million and an annual capital cost of \$2.3 million through the year 2010.

The recommended transit system plan is graphically summarized on Map 96. The plan includes recommendations regarding three levels of service: rapid-transit, express, and local transit service.

Rapid-Transit Service: As shown on Map 96 and in Table 147, under the plan, rapid-transit service would be provided in the County by buses operating over freeways, providing service between outlying areas of the County and Milwaukee. The rapid-transit system would be served by 20 transit stations in the County. Service would be provided in both directions during peak periods. The plan calls for an increase in the number of miles and hours of transit vehicle operation on an average week-day. As indicated in Table 147, a total of about 1,635 parking spaces would be provided for transit passengers at 18 of the 20 transit stations in the County.

Initially, all service would be provided by buses operating over the freeway system, with service connections on selected surface arterial streets and highways. Ultimately, depending upon the results of the East-West Corridor Transit Study currently being conducted by the Wisconsin Department of Transportation, the rapid-transit service in the eastern portion of the County could be provided by buses operating over busways within, or parallel to, the IH 94 freeway corridor.

The plan also recognizes the potential to establish commuter-rail passenger service as an alternative to bus-on-freeway or bus-on-busway rapid-transit service in the Milwaukee-Oconomowoc corridor. The plan recommends that the commuter-rail passenger service potential be evaluated in a "major investment study" for this corridor. Through such a study, a final decision would be made to provide the rapid-transit service through bus-on-freeway, bus-on-busway, or commuter rail service.

Express Transit: Express transit service is distinguished from rapid-transit service in that it provides a greater degree of accessibility at somewhat slower overall operating speeds. Under the plan, express transit service in Waukesha County would be provided by buses operating with limited stops in mixed traffic over surface arterial streets and highways. As shown on Map 96, the plan calls for one express transit route in the County, providing service between the Cities of Waukesha and Milwaukee.

Local Transit: The local level of transit service envisioned in the plan consists of buses operating over arterial and collector streets with frequent stops for passenger boarding and alighting. The plan proposes the continuation of local transit service in the City of Waukesha and in the Waukesha-Brookfield-Milwaukee corridor and the expansion of local transit service into medium-density residential areas on the east side of the County. Peak-period headways in the Waukesha urban area would be improved so that all routes would operate at 30-minute headways. The plan also envisions the provision of local transit service between certain economic activity centers, including centers at IH 94 and STH 67, IH 94 and STH 83, and IH 94 and STH 164. Such service would facilitate circulation within those centers and would be linked to the rapid-transit system by shuttle bus service.

Buildout Transit System Plan

As already noted, full development of the recommended County land use plan would result in population and employment levels and urban land development significantly greater than that envisioned by the year 2010. Such growth, however, may be expected to warrant only minimal expansion of transit service areas and service levels beyond those proposed in the year 2010 regional plan and 2010 stage of the County land use plan, because of the relatively low density and scattered pattern of the incremental development proposed under the full development, or buildout, scenario. Thus, the

RECOMMENDED PUBLIC TRANSIT SYSTEM PLAN FOR WAUKESHA COUNTY AND ENVIRONS: 2010

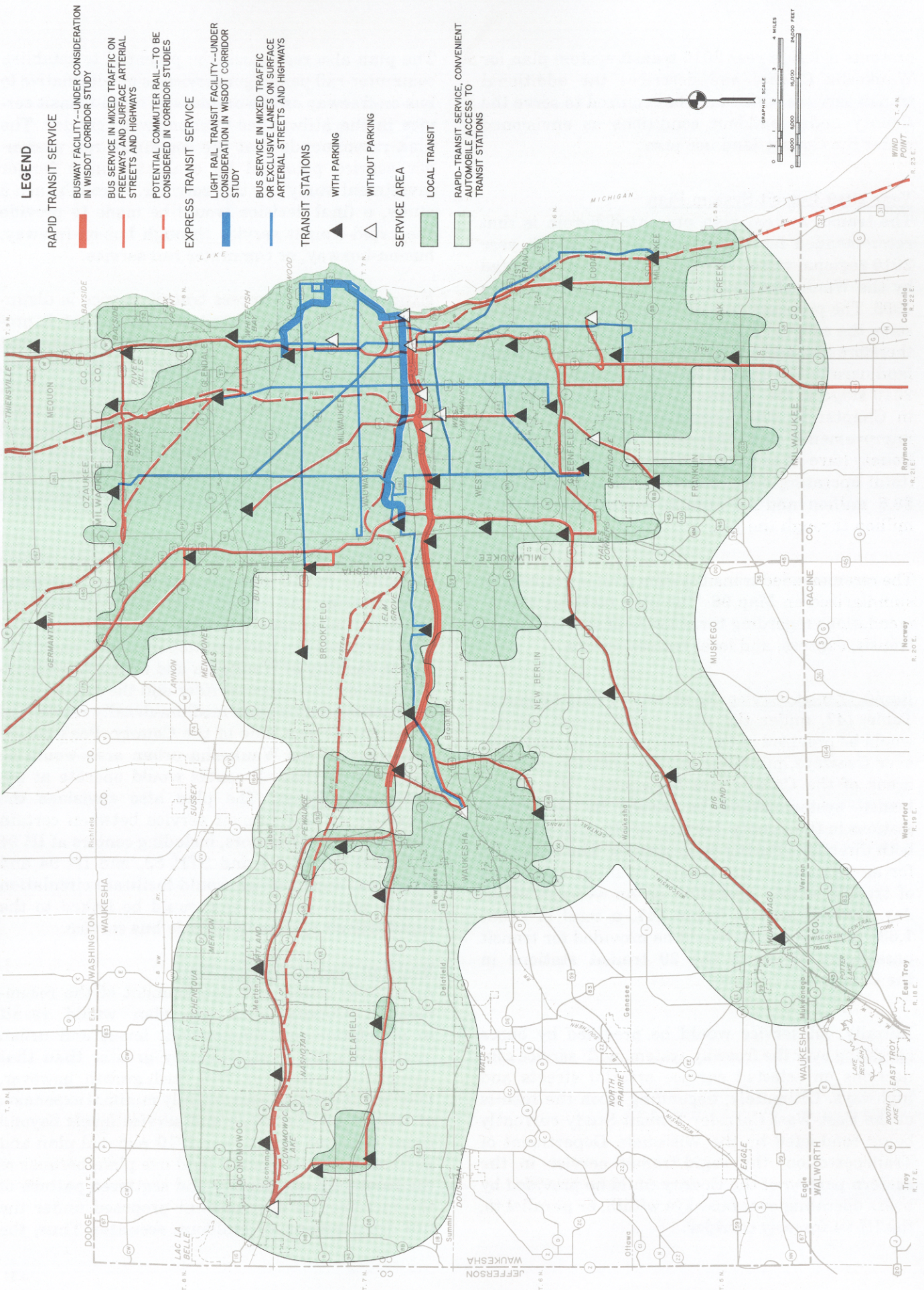


Table 147

**TRANSIT STATIONS WITHIN WAUKESHA COUNTY AND PARKING REQUIREMENTS FOR
TRANSIT PASSENGERS: EXISTING 1991 AND 2010 REGIONAL TRANSPORTATION SYSTEM PLAN**

Station Number	Location	Civil Division	Status	Number of Parking Spaces ^a
1	N. Calhoun Road and W. Capitol Drive	City of Brookfield	Proposed	25
2	N. 130th Street and W. Capitol Drive	City of Brookfield	Proposed	140
3	S. Main Street and E. Wisconsin Avenue	City of Oconomowoc	Proposed	--
4	STH 16 and CTH P	Town of Oconomowoc	Existing	45
5	STH 16 and CTH C	Village of Nashotah	Existing	50
6	STH 16 and Merton Avenue	Village of Hartland	Proposed	25
7	STH 16 and CTH JJ	Village of Pewaukee	Proposed	25
8	STH 67 and Pabst Road	City of Oconomowoc	Proposed	25
9	STH 67 and CTH DR	Town of Summit	Existing	80
10	IH 94 and STH 83	City of Delafield	Existing	190
11	IH 94 and CTH G	Town of Pewaukee	Existing	45
12	IH 94 and STH 164	Town of Pewaukee	Existing	250
13	W. Broadway and Clinton Street	City of Waukesha	Existing	--
14	STH 59 and West Avenue	City of Waukesha	Proposed	25
15	IH 94 and N. Barker Road	Town of Brookfield	Existing	130
16	IH 94 and N. Moorland Road	City of Brookfield	Proposed	120
17	IH 43 and STH 83	Town of Mukwonago	Existing	100
18	IH 43 and STH 164	Town of Vernon	Existing	100
19	IH 43 and Racine Avenue	City of New Berlin	Existing	60
20	IH 43 and S. Moorland Road	City of New Berlin	Existing	200
--	Total	--	--	1,635

^aThe number of automobile parking spaces reflects only the parking requirements for transit passengers and does not include any parking for carpoolers.

Source: SEWRPC.

basic structure of the transit system recommended in the 2010 plan would remain adequate to serve the transit service needs in the County under the full development conditions of the County land use plan.

Transit service can be efficiently provided only within areas having sufficient population and employment levels and densities. In view of the relatively low density which would characterize much of the incremental development envisioned under the County land use plan after the year 2010, it is anticipated that only minimal expansion of

the transit service area and frequency proposed under the year 2010 plan would be feasible under plan buildout conditions. The modest additions to the transit network and service levels beyond those recommended in the 2010 plan which may be expected to be warranted would consist of shuttle bus service to link rapid-transit service stations to the larger and denser centers of population and employment growth in outlying areas. Because the recommended transit system under the buildout scenario would remain largely the same as under the year 2010 regional transportation system plan element, its estimated costs would remain at an

annual level of \$2.3 million for capital improvements and at an annual level of \$8.6 million for operating costs.

PLAN IMPLEMENTATION

The recommended transportation plan described in the previous section of this chapter provides a design for an arterial street and highway system and transit system which may be expected to serve the pattern of land use envisioned under the County development plan through the year 2010 and beyond. The rest of this chapter describes the steps which should be taken by the concerned units and agencies of government to implement the recommended plan.²

Arterial Street and Highway System Plan Implementation

The arterial street and highway system plan presented earlier in this chapter includes functional and jurisdictional recommendations for an arterial street and highway system to serve the year 2010 stage of the County land use plan and recommendations for additional facilities which may be expected to be needed under land use plan build-out conditions well beyond the year 2010. Implementation of the arterial street and highway system plan over the next decade should emphasize right-of-way acquisition and engineering for, and construction of, those facilities called for by the year 2010. During this time, however, efforts should be made to protect from urban encroachment the rights-of-way of the widened facilities that may be needed under full development of the recommended County land use plan. The following plan implementation measures are recommended:³

1. It is recommended that the Wisconsin Department of Transportation, the Waukesha County Board of Supervisors, and the city councils, village boards, and town boards in the County cooperatively seek the implementation of the jurisdictional transfers with respect to the State, County, and local trunk highway systems recommended in the plan.
2. It is recommended that the Wisconsin Department of Transportation, the Waukesha County Board of Supervisors, and the city councils, village boards, and town boards in the County proceed with preliminary engineering, right-of-way acquisition, and facility construction in accordance with the plan.

3. It is recommended that Waukesha County modify the County's highway width map, pursuant to Section 80.64 of the Wisconsin Statutes, identifying thereon the rights-of-way needed for all planned State, County, and local trunk highways, including facility needs beyond the year 2010. It is further recommended that the city councils, village boards, and town boards within the County approve the County highway width map prepared in conformance with the recommended plan and, pursuant to Section 66.23 (6) of the Wisconsin Statutes, adopt local official maps showing thereon planned State, County, and local trunk highway facilities, including the facilities needed beyond the year 2010.

4. It is recommended that the Waukesha County Board of Supervisors and the city councils, village boards, and town boards in the county, exercise land division control authority to ensure that new land divisions do not encroach into lands needed for rights-of-way of planned arterial facilities, including of facilities needed beyond the year 2010.

Transit System Plan Implementation

The transit system plan presented earlier in this chapter includes recommendations for the provision of rapid-transit, express, and local transit service within the County. As reported in Chapter V, Waukesha County currently provides express and rapid-transit service between outlying areas of

²Implementation of the transportation system plan should begin with adoption or endorsement of the plan by the concerned units and agencies of government. Recommendations with respect to adoption or endorsement of the transportation plan and other elements of the County development plan are set forth in Chapter XIV of this report.

³It is understood that the proposed County Board actions would be taken upon the recommendation of the Waukesha County Park and Planning Commission and the County Land Use, Parks and Environment and Public Works Committees and that the proposed city council, village board, and town board actions would be taken upon the recommendation of their respective plan commissions and boards of public works.